

# *Previous Year Paper*

## *IBPS RRB Officer*

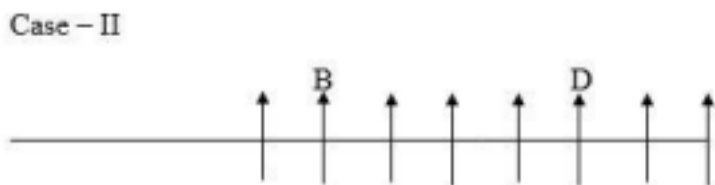
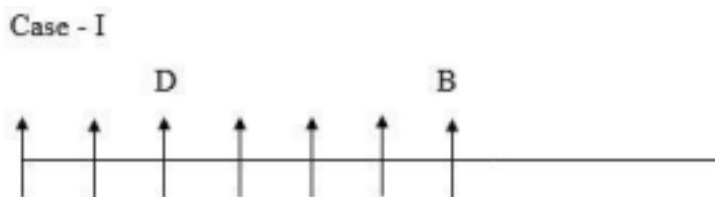
### *Assistant Prelims*

#### *IBPS RRB Officer Assistant 2021 Previous Year Paper*

**Direction:-** An Uncertain number of persons sit in a row and all face north. Only six persons sit between A and C. B sits immediate right of P and fourth to the right of C. E is an immediate neighbour of A and sits fifth to the right of F. A sits fifth from left end of the row. Three persons sit between B and D who is third from one of the extreme ends. The number of persons sit between C and G is same as the number of persons sit between A and C. A is in the left of G who is an immediate neighbour of D.

**Solution:-**

*Three persons sit between B and D who is third from one of the extreme*



*ends.*

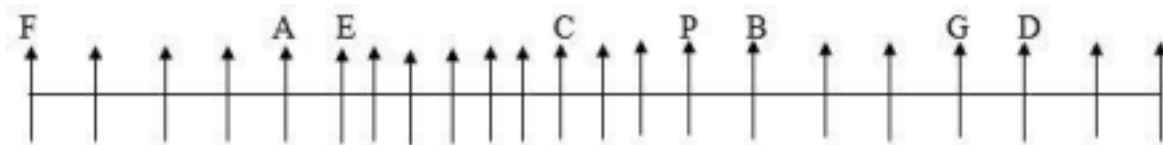
*A is in the left of G who is an immediate neighbour of D. A sits fifth from left end of the row.*

So, Case- I gets cancelled.

Only six persons sit between A and C. The number of persons sit between C and G is same as the number of persons sit between A and C.

E is an immediate neighbour of A and sits fifth to the right of F.

Case – II



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#### Question No. 1

How many people sit in the row?

Options :

- 1) 18
- 2) 22
- 3) 26
- 4) 17
- 5) Can't be determined

**Answer : 22**

#### Question No. 2

Who sits at the immediate left end of the row?

Options :

- 1) A
- 2) E
- 3) C

4) F

5) Can't be determined

**Answer : F**

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#### **Question No. 3**

How many persons sit between P and E?

Options :

1) 4

2) 8

3) 9

4) 11

5) Can't be determined

**Answer : 8**

#### **Question No. 4**

What is the position of G with respect to B?

Options :

1) Third to the right

2) Third to the left

3) Immediate right

4) Fourth to the right

5) Second to the right

**Answer : Third to the right**

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#### **Question No. 5**

Which of the following options denote the immediate neighbours?

Options :

- 1) PC
- 2) AC
- 3) AG
- 4) GP
- 5) AE

**Answer : AE**

**Direction:- Read the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.**

#### **Question No. 6**

Statements:

All Keys are Bike.

Some Bikes are Cars.

No Car is Ford.

Conclusion:

I. Some Bikes are not Ford.

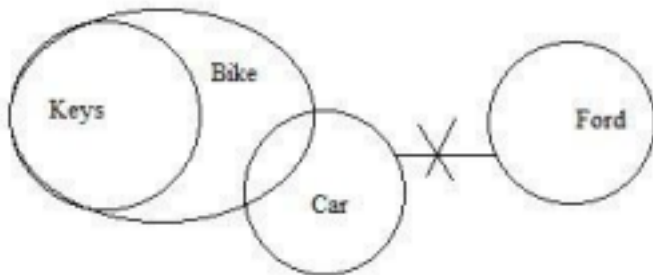
II. No Bike is Ford.

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Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

**Answer : If only conclusion I follows**



**I. Yes, Some Bike which are car are not ford.**

**II. No, as no relation is given between Bike and Ford.**

**Question No. 7**

Statements:

Only a few hands are body.

Some fit are body.

Conclusions:

I. Some hands are fit.

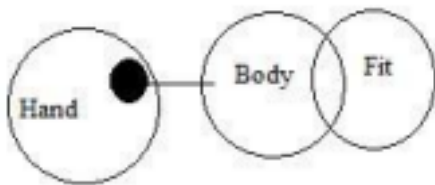
II. All body can be hands.

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Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

**Answer : If only conclusion II follows**



**I. No, as no relation is given between Hand and Fit.**

**II. Yes all Body can be hands**

**Question No. 8**

Statements:

All bat are over.

All ball are over.

Conclusions:

I. No ball is bat.

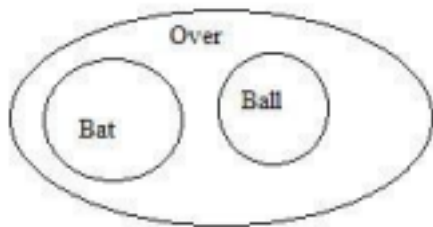
II. Some bat is ball.

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Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

**Answer : If either conclusion I or II follows**



**I. No, no relation is given between Bat and Ball.**

**II. No, no relation is given between Bat and Ball.**

**III. But both together make „Either-Or“ Case.**

### **Question No. 9**

Statements:

No mouse is rat.

All rat is mice.

Conclusions:

I. Some mice are not mouse.

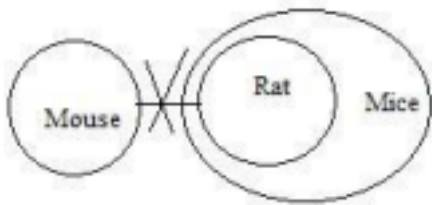
II. All mouse can be mice.

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Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

**Answer : If both conclusion I and II follows**



**I. Yes, some part of mice which is Rat is not mouse**

**II. Yes, as no relation is given between them.**

**Question No. 10**

Statements:

Only a few Sodium is metal.

No Sodium is heavy.

Conclusions:

I. All Sodium can be metal.

II. All metal can be heavy.



Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

***Answer : If neither conclusion I nor II follows***

***I. No, As only a few is given***

***II. No, Some part of Sodium which is metal cannot be Heavy.***

**Direction:-** Seven boxes P, Q, R, S, T, U and V are placed one above the other in the stack but not necessarily in the same order. T is placed immediate above V and U is placed immediately below V. The number of boxes placed above and below V are the same. Two boxes are placed between V and S. P is not placed adjacent to box T and U. R is placed below V but not placed adjacent to box S.

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**Solution:-**

***The number of boxes placed above and below V are the same (V is placed at 4<sup>th</sup> position). T is placed immediate above V and U is placed immediately below V.***

***Two boxes are placed between V and S. R is placed below V but not placed adjacent to box S (It means S cannot be placed below V).***

***P is not placed adjacent to box T and U, So it should be placed at the***

***bottom. R is placed below V. Only box left is Q which should be placed at 6<sup>th</sup>***

***postion.***

**Question No. 11**

Which box is placed at the bottom?

Options :

- 1) U
- 2) R
- 3) P
- 4) T
- 5) Can't be determined

***Answer : P***

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**Question No. 12**

How many boxes are placed between T and R?

Options :

- 1) 1
- 2) 2
- 3) 3
- 4) None
- 5) Can't be determined

***Answer : 2***

**Question No. 13**

Which box is placed immediately above R?

Options :

- 1) U
- 2) P
- 3) V
- 4) T
- 5) Can't be determined

**Answer : U**

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**Question No. 14**

Four of the options are alike in way, choose the one which is different.

Options :

- 1) P
- 2) U
- 3) Q
- 4) T
- 5) S

**Answer : Q**

**Question No. 15**

How many boxes are placed below S?

Options :

- 1) 2

2) 3

3) 4

4) 6

5) 5

**Answer : 6**

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**Direction:-** In this question, relationship between different elements is shown in the statements. The statements are followed by conclusions. Study the conclusion based on the given statement and select the appropriate answer.

**Question No. 16**

$7 > 8 \geq Q > H = 1 < D$

Conclusions

I.  $8 > H$

II.  $H < D$

Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

**Answer : If both conclusion I and II follows**

**I. Yes,  $8 \geq Q > H$**

**II. Yes,  $H = 1 < D$**

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#### **Question No. 17**

Statements  $W < Z < O \leq P > B > M$

Conclusions

I.  $P \geq Z$  II.  $B > O$

Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

**Answer : If neither conclusion I nor II follows**

**I. No,  $Z < O \leq P$**

**II. No,  $O \leq P > B$**

#### **Question No. 18**

Statement:

$P < Q > A \leq L < F = K$

Conclusion:

I.  $P > K$  II.  $K \geq P$

Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

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**Answer : If either conclusion I or II follows**

**I. No,  $P < Q > A \leq L < F = K$**

**II. No,  $P < Q > A \leq L < F = K$**

**But together they make "Either-Or" case**

#### **Question No. 19**

Statements

$Q > R > Y = J \geq D < B$

Conclusions

I.  $Y > B$

II.  $B > J$

Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

**Answer : If neither conclusion I nor II follows**

**I. No,  $Y = J \geq D < B$**

**II. No,  $J \geq D < B$**

**IBPS RRB Officer Assistant 2021 Previous Year Paper Question No. 20**

Statements:  $P > Q < K \geq L > W \geq D = N \leq X$

Conclusion

I:  $X > D$

II:  $K \geq D$

Options :

- 1) If only conclusion I follows
- 2) If only conclusion II follows
- 3) If both conclusion I and II follows
- 4) If either conclusion I or II follows
- 5) If neither conclusion I nor II follows

**Answer : If neither conclusion I nor II follows**

**I. No,  $D=N \leq X$**

**II. No,  $K \geq L > W \geq D$**

**Direction:- Read the instruction carefully and answer the questions:**

Eight persons of a family living in a house. There are two married couples and three generations in this family.

V is the father of C. A is the parent of B, who is the only sister of C. D is the father-in-law of A. W is the only daughter of D. R is the daughter of E who is the son-in-law of D.

**Solution:-**

..

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**Question No. 21**

How is R related to V?

Options :

- 1) Son
- 2) Daughter
- 3) Niece
- 4) Nephew
- 5) Can't be determined

**Answer : Niece**

**Question No. 22**

Who is C related to B?

Options :

- 1) Nephew
- 2) Niece
- 3) Daughter
- 4) Son
- 5) Can't be determined

**Answer : Can't be determined**

**Question No. 23**

If C is the grandson of D. How many male members are there?

Options :

- 1) 2
- 2) 4
- 3) 3
- 4) 5
- 5) Can't be determined

**Answer : 4**

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**Question No. 24**

How many pairs of digits are there in the number '7362188', each of which have as many digits between them (both forward and backward direction) in the number as they have between them according to the number series?



Options :

- 1) 1
- 2) 2
- 3) 3
- 4) 4
- 5) None

**Answer : 2**

**1-2**

**3-8**

**2 such pairs**

**Direction:- Read the instructions carefully before answering the questions:**

A person starts walking in the north direction and walks 12m, then takes two consecutive right turns and walks 14m and 12m respectively. From there he takes a left turn and walks 10m, then finally takes a right turn and walks 8m to reach his destination.

**Solution**

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#### **Question No. 25**

Which direction is he facing now?

Options :

- 1) East
- 2) West
- 3) North
- 4) South
- 5) Can't be determined

**Answer : South**

#### **Question No. 26**

In which direction is he now with respect to his initial position?

Options :

- 1) South
- 2) North-West
- 3) South West
- 4) North East
- 5) South East

**Answer : South East**

**Question No. 27**

If he turn right and walks 24m then how far is he from his initial position?

Options :

- 1) 8m
- 2) 14m
- 3) 226m
- 4) 16m
- 5) Can't be determined

**Answer : 8m**

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**Direction:- Study the following information carefully and answer the questions given below.**

Seven persons live in a seven-storey building. The ground floor is numbered as 1 and the topmost floor is numbered as 7.

Four persons live between A and B, who lives below A's floor. Two persons live between C and B. G lives immediately above D's floor. More than three persons live between E and F. E lives below D's floor.

**Solution:-**

**Question No. 28**

Who live at the bottom?

Options :

- 1) E
- 2) A
- 3) B
- 4) C
- 5) Can't be determined

**Answer : E**

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#### **Question No. 29**

How many persons live between A and F?

Options :

- 1) 1
- 2) 2
- 3) 3
- 4) None
- 5) Can't be determined

**Answer : None**

#### **Question No. 30**

Who lives at 5th floor?

Options :

- 1) E
- 2) A
- 3) B
- 4) C
- 5) Can't be determined

**Answer : C**

#### **Question No. 31**

G lives on which floor?

Options :

- 1) 3rd
- 2) 4th
- 3) 7th
- 4) 5th
- 5) Can't be determined

**Answer : 4<sup>th</sup>**

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#### **Question No. 32**

Four of the given options are alike in a way. Choose the odd one.

Options :

- 1) E
- 2) D
- 3) F
- 4) C
- 5) A

**Answer : F**

**Direction:- Use the given arrangement to answer the given questions:-**

A & B 6 C 7 © 1 M 8 % Z 2 3 \$ C I 9 # F φ N R @ 5 4 U \* D

#### **Question No. 33**

Which is the following element is 7<sup>th</sup> to the right of 9<sup>th</sup> from the left end?

Options :

- 1) \$
- 2) C
- 3) I

4) 9

5) F

**Answer : C**

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#### **Question No. 34**

How many digits are there in the above arrangement which are immediately followed by a symbol and preceded by a consonant?

Options :

1) 1

2) 2

3) 3

4) 4

5) None

**Answer : 2**

**C 7 ©**

**M 8 %**

#### **Question No. 35**

How many elements are there between 6th element from left end and 11th elements from right end?

Options :

1) 10

2) 13

3) 11

4) 12

5) 9

**Answer : 12**

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**Question No. 36**

How many such symbols are there which are preceded by a number and followed by a

letter? Options :

- 1) 1
- 2) 3
- 3) 2
- 4) 4
- 5) None

**Answer : 3**

**8 % Z**

**9 # F**

**3 \$ C**

**Question No. 37**

How many total elements are there?

Options :

- 1) 26
- 2) 28
- 3) 29
- 4) 31
- 5) 30

**Answer : 29**

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### **Question No. 38**

If in a certain language OPEL is written as &\*%\$ and PASS is written as \*@##. Then how would APPLE be coded in the same language?

Options :

- 1) @\$\*\$%
- 2) @\$\*%%
- 3) @\*\*\$%
- 4) \*\*#\$%
- 5) Can't be determined

**Answer : @\*\*\$%**

**O & P \* E % L \$ A @ S # So, APPLE = @\*\*\$%**

**Direction:- Read the instruction carefully and answer the questions:**

A group of 5 persons is comparing their heights. All members are of different heights. A is taller than only one person. B is taller than D but shorter than F. D is not shorter than A. C is also a member.

### **Question No. 39**

How many persons are shorter than B?

Options :

- 1) 2
- 2) 4
- 3) 3
- 4) No one
- 5) Can't be determined

**Answer : 3- F >B>D>A>C**

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**Question No. 40**

If the weight of A is 28kg, what can be the weight of C?

Options :

- 1) 27
- 2) 29
- 3) 30
- 4) 40
- 5) 28

**Answer : 27**

**$F > B > D > A > C$**

**Direction:- Read the data given below and answer the following questions.**

**The bar graph given below shows the total no. of shops and no. of vacant shops in five Multiplex buildings.**

**Note – Total Shops = Vacant Shops + Occupied Shops**

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**Solution:-**

**Question No. 41**

No. of vacant shops in building C and D together are approximate what percentage of no. of occupied shops in building D and E together.

Options :

- 1) 57%
- 2) 67%
- 3) 66%
- 4) 65%



5) 69%

**Answer : 67%-Required percentage =  $(180 + 220)/(380+220) \times 100 = 66(2)/(3) = 67\%$**

**Question No. 42**

What is the respective ratio of occupied shops in building A and E together to vacant shops in C and D together?

Options :

- 1) 20:23
- 2) 25:23
- 3) 23:20
- 4) 21:23
- 5) 23:21

**Answer : 23:20- Required Ratio =  $(240+220)/(180+220) = 460/400 = 23:20$**

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**Question No. 43**

Average no. of vacant shops in building A and E is what percentage of occupied shops in building C.

Options :

- 1) 50%
- 2) 100%
- 3) 105%
- 4) 60%
- 5) 57%

**Answer : 50%**

**Average vacant shops in A and E =  $(160+200)/2 = 180$**

**Required percentage =  $180/360 \times 100 = 50\%$**

**Question No. 44**

Total shops in building B and D together are how much more or less than that in building A and C together.

Options :

- 1) 102
- 2) 120
- 3) 130
- 4) 105
- 5) 100

**Answer : 120**

$$\text{Required Difference} = (460 + 600) - (400 + 540) = 1060 - 940 = 120$$

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#### **Question No. 45**

If 3 people visit in each occupied shop of building A in a day and 2 people visit in each occupied shop of building B in a day, then find total no. of people visiting in multiplex building A and B in a day.

Options :

- 1) 1300
- 2) 1450
- 3) 1400
- 4) 1500
- 5) 1550

**Answer : 1400**

$$\text{Required no.} = 3 \times 240 + 2 \times 340 = 720 + 680 = 1400$$

**Direction:-** What should come in place of the question mark (?) in the following question?

#### **Question No. 46**

$$\sqrt{1296}, 4 \times 24 = ?$$

Options :

- 1) 156
- 2) 216
- 3) 98
- 4) 112

**Answer : 216**

$$36 \div 4 \times 24 = ?$$

$$9 \times 24 = ?$$

$$216 = ?$$

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#### **Question No. 47**

$$704 \div 32 \times 13 + 175 - 315 = ?$$

Options :

- 1) 283
- 2) 234
- 3) 146
- 4) 753
- 5) None of these

**Answer : 146**

$$22 \times 13 + 175 - 315 = ?$$

$$286 + 175 - 315 = ?$$

$$146 = ?$$

#### **Question No. 48**

$$4/5 \text{ of } 24\% \text{ of } 750 = ?$$

Options :

- 1) 144

- 2) 65
- 3) 99
- 4) 105

**Answer : 144**

$$4/5 \text{ of } 180 = ?$$

$$720/5 = ?$$

$$144 = ?$$

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#### **Question No. 49**

$$512 \div 8 \div ? = 16$$

Options :

- 1) 4
- 2) 9
- 3) 16
- 4) 8

**Answer : 4**

$$512 \times 1/8 \times 1/? = 16$$

$$1/? = (16 \times 8)/512$$

$$1/? = 128/512 = 1/4$$

$$? = 4$$

#### **Question No. 50**

$$?\% \text{ of } 450 - 18 = 180$$

Options :

- 1) 44
- 2) 55
- 3) 35
- 4) 40
- 5) None of these

**Answer : 44**

$$?/100 \times 450 = 180 + 18$$

$$? \times 4.5 = 198$$

$$? = 198/4.5$$

$$? = 44$$

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#### **Question No. 51**

$$(4)^2 \% \text{ of } ? = 300 + 20$$

Options :

1) 2000

2) 2200

3) 600

4) 900

**Answer : 2000**

$$16/100 \times ? = 320$$

$$? = (320 \times 100)/16$$

$$? = 2000$$

#### **Question No. 52**

$$(750 \div 50)^2 - (12)^2 = (?)^2$$

Options :

1) 9

2) 24

3) 18

4) 20

5) None of these

**Answer : 9**

$$(15)^2 - (12)^2 = (?)^2$$

$$225 - 144 = (?)^2$$

$$(?)^2 = 81 = 9^2$$

$$? = 9$$

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#### **Question No. 53**

$$4^2 \times 100 \div 4 - 230 = ?$$

Options :

1) 170

2) 245

3) 315

4) 480

***Answer : 170***

$$4^2 \times 100 \div 4 - 230 = ?$$

$$16 \times 25 - 230 = ?$$

$$400 - 230 = ?$$

$$? = 170$$

#### **Question No. 54**

$$(5/6) \text{ of } 55\% \text{ of } ? = 1416.25$$

Options :

1) 2525

2) 3090

3) 2432

4) 8060

5) None of these

***Answer : 3090***

$$(5/6) \times 55/100 \times ? = 1416.25$$

$$? = (1416.25 \times 100 \times 6) / (5 \times 55)$$

$$? = 3090$$

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#### **Question No. 55**

$$\sqrt{2809} + \sqrt{?} = \sqrt{21025}$$

Options :

- 1) 3721
- 2) 841
- 3) 6241
- 4) 8464
- 5) None of these

**Answer : 8464**

$$5^3 + \sqrt{?} = 145$$

$$\sqrt{?} = 145 - 53$$

$$? = 92 \times 92 = 8464$$

#### **Question No. 56**

$$54\% \text{ of } 550 + 38\% \text{ of } ? = 449$$

Options :

- 1) 200
- 2) 300
- 3) 400
- 4) 250
- 5) None of these

**Answer : 400**

$$297 + 38/100 \times ? = 449$$

$$38/100 \times ? = 449 - 297$$

$$38/100 \times ? = 152$$

? = 400

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**Direction:-** In the following questions two equations numbered I and II are given. You have to solve both the equations. Give answer if;

- (1)  $p = q$  or relationship cannot be established between  $p$  and  $q$
- (2)  $p > q$
- (3)  $p < q$
- (4)  $p \leq q$
- (5)  $p \geq q$

### Question No. 57

I.  $2p^2 - 13p + 21 = 0$

II.  $3q^2 - 7q + 2 = 0$

Options :

- 1) 1
- 2) 2
- 3) 3
- 4) 4
- 5) 5

**Answer : 2**

**I.  $2p^2 - 13p + 21 = 0$**

**If sign of quadratic equations is -ve and +ve respectively then both the roots will be +ve and +ve**

**so,**

**Roots of equation I will be  $42 (2 \times 21) = 7/2$  and  $6/2$  or  $7/2$  and  $3$**

**II.  $3q^2 - 7q + 2 = 0$**

**If sign of quadratic equations is -ve and +ve respectively then both the roots will be +ve and +ve**

**so,**

**Roots of equation II will be  $6 (3 \times 2) = 6/3$  and  $1/3$  or  $2$  and  $1/3$**



*Therefore,  $p > q$ .*

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**Direction:-** In each of these questions two equations numbered (i) and (ii) are given. You have to solve both the equations and give answer, if –

#### **Question No. 58**

(i)  $p^2 - 24p + 144 = 0$

(ii)  $q^2 - 26q + 169 = 0$

Options :

- 1)  $p > q$
- 2)  $p < q$
- 3)  $p = q$  or  $p$  &  $q$  relationship cannot be established
- 4)  $p \geq q$
- 5)  $p \leq q$

***Answer :  $p < q$***

***(i)  $p^2 - 24p + 144 = 0$***

***$\Rightarrow (p - 12)^2 = 0$***

***$\Rightarrow p - 12 = 0$***

***$\Rightarrow p = 12$***

***(ii)  $q^2 - 26q + 169 = 0$***

***$\Rightarrow (q - 13)^2 = 0$***

***$\Rightarrow q - 13 = 0$***

***$\Rightarrow q = 13$***

Hence,  $p < q$

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**Direction:-** In each question two equations are provided. On the basis of these you have to find out the relation between p and q. Give answer.

#### **Question No. 59**

I.  $p^2 - 19p + 88 = 0$

II.  $q^2 - 48q + 576 = 0$

Options :

1) if  $p = q$

2) if  $p > q$

3) if  $q > p$

4) if  $p \geq q$

5) if  $q \geq p$

**Answer : if  $q > p$**

**I.  $p^2 - 19p + 88 = 0$**

**$(p - 11)(p - 8) = 0$**

**$p = 11$  or  $8$**

**II.  $q^2 - 48q + 576 = 0$**

**$(q - 24)(q - 24) = 0$**

**$q = 24$  or  $24$**

**Hence,  $q > p$**

**Alternate Method:**

**if signs of quadratic equation is -ve and +ve respectively then the roots of equation will**

be +ve and +ve.

So, roots of first equation =  $p = 11, 8$

So, roots of second equation =  $q = 24$

After comparing roots of quadratic equation we can conclude that  $p < q$ .

## IBPS RRB Officer Assistant 2021 Previous Year Paper

Direction:- In the following questions two equations numbered I and II are given. You have to solve both the equations. Give answer if;

### Question No. 60

I.  $x^2 - 6x = 7$

II.  $2y^2 + 13y + 15 = 0$

Options :

1)  $x < y$

2)  $x > y$

3)  $x = y$

4)  $x \geq y$

5)  $x \leq y$

**Answer :  $x > y$**

**I.  $x^2 - 6x = 7$**

**$x^2 - 6x - 7 = 0$**

**$(x - 7)(x + 1) = 0,$**

**$x = 7, -1$**

**II.  $2y^2 + 13y + 15 = 0$**

**$2y^2 + 3y + 10y + 15 = 0$**

**$y(2y + 3) + 5(2y + 3) = 0,$**

**$(2y + 3)(y + 5) = 0$**

**$y = -\frac{3}{2}, -5$**

**Hence,  $x > y$**

## **IBPS RRB Officer Assistant 2021 Previous Year Paper**

**Direction:-** In the following questions two equations numbered I and II are given. You have to solve both the equations. Give answer if;

(1)  $p > q$ , (2)  $p < q$ , (3)  $p = q$ , (4) ' $p \geq q$ ', (5) ' $p \leq q$ '

**Question No. 61**

I.  $p^2 + p = 56$

II.  $q^2 - 17q + 72 = 0$

Options :

- 1) 1
- 2) 2
- 3) 3
- 4) 4
- 5) 5

**Answer : 2**

**$I. p^2 + p = 56$  or  $p^2 + p - 56 = 0$**

**$p^2 + 8p - 7p - 56 = 0$  or,  $(p - 7)(p + 8) = 0$**

**Or  $p = -8$  or  $7$ ,**

**II.  $q^2 - 17q + 72$ , or  $(q - 8)(q - 9) = 0$ , Or  $q = 8$  or  $9$ ,**

**Hence,  $q > p$**

## **IBPS RRB Officer Assistant 2021 Previous Year Paper**

**Question No. 62**

The profit percentage of X and Y is same on selling the articles at Rs. 1800 each but X calculates

his profit on the selling price while Y calculates it correctly on the cost price which is equal to 20%.

What is the difference in their profits?

Options :

- 1) Rs. 60
- 2) Rs. 68
- 3) Rs. 56
- 4) Rs. 58
- 5) None of these

**Answer : Rs. 60**

**Profit(Calculated on SP) = 20% of 1800 = 360**

**Profit(calculated on CP)**

$$x + x/5 = 1800$$

$$6x/5 = 1800$$

$$x = 1500$$

$$\text{Profit} = 1500/5 = \text{Rs. } 300$$

$$\text{Difference} = 360 - 300 = \text{Rs. } 60$$

### **IBPS RRB Officer Assistant 2021 Previous Year Paper**

#### **Question No. 63**

Rahul travelled from point A to B. Rahul went by bike at the speed of 20 km/h and came back at the speed of 5 km/h. If Rahul took 6 hours and 45 min to complete his journey, then what is the distance between A and B?

Options :

- 1) 29 km
- 2) 30 km
- 3) 27 km

4) 19 km

5) 36 km

**Answer : 27 km**

**Average speed of Rahul =  $\frac{2xy}{x+y} = \frac{(2 \times 20 \times 5)}{(20 + 5)} = \frac{200}{25} = 8 \text{ km/h}$**

**Distance travelled = Speed  $\times$  Time =  $8 \times 27/4 = 54 \text{ Km}$**

**Distance between A and B =  $54/2 = 27 \text{ km}$**

#### **Question No. 64**

Two trains A and B running at the speed of 180 km/hr and 288 km/hr respectively crossed another train 'M', which is standing stationary of length 380 meters in 21 sec and 24 sec respectively. How much time both train A and B will take to cross each other, if both of them are running in opposite direction?

Options :

1) 22

2) 17

3) 57

4) 62

5) 31

**Answer : 17**

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**Let distance of train A and B be „x“ meters and „y“ meters respectively.**

**ATQ,**

$$180 \times \frac{5}{18} = \frac{(x + 380)}{21}$$

$$1050 = x + 380$$

$$x = 670 \text{ meters}$$

**And,**

$$288 \times \frac{5}{18} = \frac{(y + 380)}{24}$$

$$1920 = y + 380$$

$$y = 1540 \text{ meters}$$

Let required time be  $T$  sec,

$$(180 + 288) \times 5/18 = (670+1540)/T$$

$$130T = 2210$$

$$T = 17 \text{ sec}$$

### Question No. 65

A started a business with an investment of Rs 16,000. After 2 months B joins in with  $5/8$  of the amount that A invested and A withdraws Rs 4,000. After 2 more months, C joins with Rs 12,000 and A again withdraws Rs 2,000. After an year, If C received Rs 3,120 as his share then what was the total profit?

Options :

- 1) Rs. 16,954
- 2) Rs. 11,668
- 3) Rs. 10,790
- 4) Rs. 14,326
- 5) None of these

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**Answer : Rs. 10,790**

$$\text{Ratio equivalent capitals of A, B and C for 1 year} = (16,000 \times 2 + 12,000 \times 2 + 10,000 \times 8) : (5/8 \times 16,000 \times 10) : (12,000 \times 8)$$

$$= (32,000 + 24,000 + 80,000) : 1,00,000 : 96,000$$

$$= 1,36,000 : 1,00,000 : 96,000$$

$$= 136 : 100 : 96$$

$$= 34 : 25 : 24$$

*If the total profit at the end of the year be Rs x, then*

$$24x/((34+25+24)) = 3,120$$

$$\Rightarrow 24x = 3,120 \times 83$$

$$\Rightarrow x = (3,120 \times 83)/24 = \text{Rs } 10,790$$

### **Question No. 66**

A certain sum is invested for 2 years in scheme A at 25% p.a. compound interest compounded annually. Same sum is also invested for n period in scheme B at 15% p.a. at a simple interest. The interest earned from scheme A is 150% of that earned from scheme B. What is the value of n?

Options :

- 1) 3.6
- 2) 5
- 3) 2.5
- 4) 4
- 5) None of these

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**Answer : 2.5**

$$\text{CI rate for 2 years at 25\% pa} = 25 + 25 + (25 \times 25)/100 = 56.25\%$$

*Let the sum is = P*

$$\text{So CI} = P \times 56.25\%$$

$$\text{SI for n period at 15\% pa} = P \times n \times 15\%$$

*According to question,*

$$P \times 56.25\% = 3/2 (P \times n \times 15\%)$$

$$n = 2.5 \text{ yrs.}$$



**Question No. 67**

105 301 157 257 193 ?

Options :

- 1) 229
- 2) 298
- 3) 399
- 4) 352
- 5) None of these

**Answer : 229**

$$+ 14^2, - 12^2, + 10^2, - 8^2, + 6^2$$

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**Direction:- Find the missing number in the following number series.**

**Question No. 68**

25, 13, 14, 22.5, ?

Options :

- 1) 15
- 2) 12
- 3) 16
- 4) 47
- 5) 25

**Answer : 47**

$$25 \times .5 + .5 = 13$$

$$13 \times 1 + 1 = 14$$

$$14 \times 1.5 + 1.5 = 22.5$$

$$22.5 \times 2 + 2 = 47$$

**Question No. 69**

41 64 85 ? 121 136

Options :

- 1) 108
- 2) 106
- 3) 102
- 4) 104
- 5) 100

**Answer : 104**

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$$41 + 23 = 64$$

$$64 + 21 = 85$$

$$85 + 19 = 104$$

$$104 + 17 = 121$$

$$121 + 15 = 136$$

**Question No. 70**

73 76 74 77 75 ?

Options :

- 1) 79
- 2) 78
- 3) 77
- 4) 76
- 5) 75

**Answer : 78**

$$73 + 3 = 76$$

$$76 - 2 = 74$$

$$74 + 3 = 77$$

$$77 - 2 = 75$$

$$75 + 3 = 78$$

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#### **Question No. 71**

11 17 29 53 101 ?

Options :

1) 201

2) 183

3) 197

4) 213

5) 202

***Answer : 197***

$$11 + 6 = 17$$

$$17 + 12 = 29$$

$$29 + 24 = 53$$

$$53 + 48 = 101$$

$$101 + 96 = 197$$

**Direction:- Study the table carefully to answer the questions that follow:**

**Sales (in lakh) of the food items of six different Restaurants over the given**

months.

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#### **Question No. 72**

The number of food items sold by D in all the given months is what per cent of the number of food items sold by C from February to May? (approx)

Options :

- 1) 125%
- 2) 127%
- 3) 129%
- 4) 123%
- 5) 55%

**Answer : 125%**

**Sales in Restaurant D**

$$= 190+65+118+165+185$$

$$= 723$$

**Sales in Restaurant C**

$$= 70 + 129 + 185 + 195$$

$$= 579$$

$$\text{Required \%} = 723/579 \times 100 = 125\%$$

#### **Question No. 73**

The food sold by A in May is what per cent less of the total number of foods sold by all the restaurants together in that month? (Find in approximation)

Options :

- 1) 89%
- 2) 82%
- 3) 85%
- 4) 83%
- 5) 88%

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**Answer : 82%**

**Number of foods sold by A in May = 175**

**Total number of foods sold in May by all the Restaurants**

$$= 175 + 160 + 195 + 185 + 123 + 112$$

$$= 950$$

**Therefore, required difference**

$$= 950 - 175$$

$$= 775$$

$$\text{Reqd. \%} = 775/950 \times 100 = 81.57 \approx 82\%$$

### **Question No. 74**

What is the approximate average number of foods sold (in lakh) in the month

February? Options :

1) 76

2) 47

3) 75

4) 74

5) 77

**Answer : 75**

**Reqd. avg**

$$= (90 + 80 + 70 + 65 + 67 + 76)/6 = 448/6 = 74.66 \approx 75$$

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### **Question No. 75**

The ratio of foods sold by C In all the given months to the foods sold by F in all the given months is?

Options :

- 1) 327:253
- 2) 203: 327
- 3) 253: 327
- 4) 327:203
- 5) None of these

**Answer : 253: 327**

**Reqd ratio**

$$= (180 + 70 + 129 + 185 + 195) / (420 + 76 + 193 + 180 + 112)$$

$$= 759/981$$

$$= 253/327$$

$$= 253: 327$$

**Question No. 76**

Find the difference between the average sales in March and that of May for all the restaurants taken together?

Options :

- 1) 16.66
- 2) 16.33
- 3) 16.55
- 4) 16.22
- 5) 16.11

**Answer : 16.33**

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**Total sales in March:**

$$= 140 + 130 + 129 + 118 + 142 + 193$$

$$= 852$$

**Total sales in May:**

$$= 175 + 160 + 195 + 185 + 123 + 112$$

$$= 950$$

**Difference in total sales**

$$= 950 - 852$$

$$= 98$$

**Reqd. average difference =  $98/6 = 16.33$ .**

### **Question No. 77**

The area of a square is 2116 square metres. The breadth of a rectangle is half of the side of the square and the length of the rectangle is thrice its breadth. What is the difference between the area of the square and the area of the rectangle?

Options :

- 1) 182 square metre
- 2) 150 square metre
- 3) 520 square metre
- 4) 529 square metre
- 5) None of these

**Answer : 529 square metre**

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### **Question No. 78**

My grandmother was 9 times older to me 18 years ago. She would be 3 times of my age 9 years from now. 9 years ago, what was the ratio of my age to that of my grandmother?

Options :

- 1) 3:1
- 2) 1:5
- 3) 1:4

4) 2:5

5) 3:4

**Answer : 1:5**

**Let my age 18 years ago be x years**

**My grandmother's age at that time = 9 x years**

**My present age = (x + 18) years**

**My grandmother's present age = (9 x + 18) years**

**According to question**

$$3(x + 18 + 9) = (9x + 18 + 9)$$

$$3x + 81 = 9x + 27$$

$$9x - 3x = 81 - 27$$

$$6x = 54$$

$$x = 9$$

**Now, ratio of ages 9 years ago =  $(x + 18 - 9)/(9x + 18 - 9) = (9 + 18 - 9)/(9 \times 9 + 18 - 9) = 18/90 = 1:5$**

## **IBPS RRB Officer Assistant 2021 Previous Year Paper**

### **Question No. 79**

If Rs. 12000 is invested at a simple interest at the rate of 5% p.a., Rs. 4800 is obtained as interest in certain years. In order to earn Rs. 6400 as interest on Rs. 20,000 in the same number of years, what should be the rate of simple interest?

Options :

1) 6%

2) 8%

3) 4%

4) 5%

5) None of these

**Answer : 4%**

$$S.I = (P \times R \times T)/100$$

$$4800 = (12000 \times 5 \times T)/100$$



$$T = 4800/600$$

$$T = 8 \text{ years}$$

Similarly,

$$6400 = (20000 \times 8 \times R)/100$$

$$R = 6400/1600$$

$$R = 4\% \text{ per annum}$$

## **IBPS RRB Officer Assistant 2021 Previous Year Paper**

### **Question No. 80**

A tank is filled by 3 pipes, second pipe take 10 hours more than first pipe and 10 hours less than third pipe to fill the tank alone. If second and third pipe together take 2 hour more than first pipe to fill the tank then find out how much time second pipe will take to fill the tank alone?

Options :

- 1) 20 hours
- 2) 10 hours
- 3) 5 hours
- 4) 6 hours
- 5) None of these

**Answer : 20 hours**

**Let the second pipe can fill tank in  $x$  hours**

**So, first pipe fill tank in  $(x-10)$  hours and**

**Third pipe fill tank in  $(x + 10)$  hours**

**According to the question,**

**Second pipe and third pipe together take 2 hour more time to fill the tank from first pipe. So time taken by second pipe third pipe together =  $(x - 10 + 2)$  hours =  $(x - 8)$**

$$\text{hours } 1/x + 1/(x + 10) = 1/(x - 8)$$

$$(x + 10 + x)/(x^2 + 10x) = 1/(x - 8)$$

$$(x - 8)(2x + 10) = x^2 + 10x$$

$$2x^2 + 10x - 16x - 80 = x^2 + 10x$$

$$x^2 - 16x - 80 = 0$$

$$x^2 - 20x + 4x - 80 = 0$$

$$x(x - 20) + 4(x - 20) = 0$$

$$(x - 20)(x + 4) = 0$$

$$x = -4, 20$$

*So second pipe can fill the tank in 20 hours alone.*